Material Off-Shore Sourcing
MOSS Project

Customs / Logistics Strategies to Strengthen Long Distance Supply Chains

Story Points:

- Define the Problem

- Goals and Objectives

- Current Status

- Test Harness

MOSS - Define the Problem

- An inordinate amount of paper documents has resulted in substantial delays in moving freight,

- Many service providers are faxing, emailing and even carrying paper documents, faxed documents are often unreadable or missing critical information,

- Many trading partners use EDI internally and then revert to paper when conducting transportation and government business,

- End to end shipment visibility is limited to numerous proprietary systems, many of these are not real time and do not cover all events end to end,

- Split shipments, changing modes, and other high and low impact disruptions are very difficult to manage.

Current State Communication – communicating by email, phone calls, faxes and paper documents is expensive and error prone.

√   **AMR Survey reports**:

91% of all communication problems are directly attributable to the use of email, phone, fax and paper. With only 9% of problems emanating through use of electronic data exchange.

79% of all data used in long distance supply chains is re-keyed multiple times into the various systems for business, customs and shipping.

AMR Survey Highlights

Current State Communication Mediums

√ **79% of respondents believe standardizing the exchange of information will reduce disruptions in the supply chain.**

% who use these methods to move data

- 90% Use Email to move data
- 83% Use Phone calls to move data
- 81% Use Faxes to move data
- 56% Use Paper to move data
- 53% Use EDI to move data
- 18% Use Edifact to move data
- 11% Use XML to move data

MOSS - Project Goals and Objectives

♦ Eliminate or significantly reduce the use of paper documents and enhance the flow of electronic information

♦ Improve compliance (C-TPAT, WCO Standards for Secure Trade)

♦ Improve visibility and improve security

♦ Improve predictability and reduce trade lane uncertainty

♦ Improve response to disruptions and supply chain resiliency

♦ Reduce buffer inventory

♦ Reduce expedites and premium transportation costs

♦ Increase corporate profitability

AMR Survey Highlights
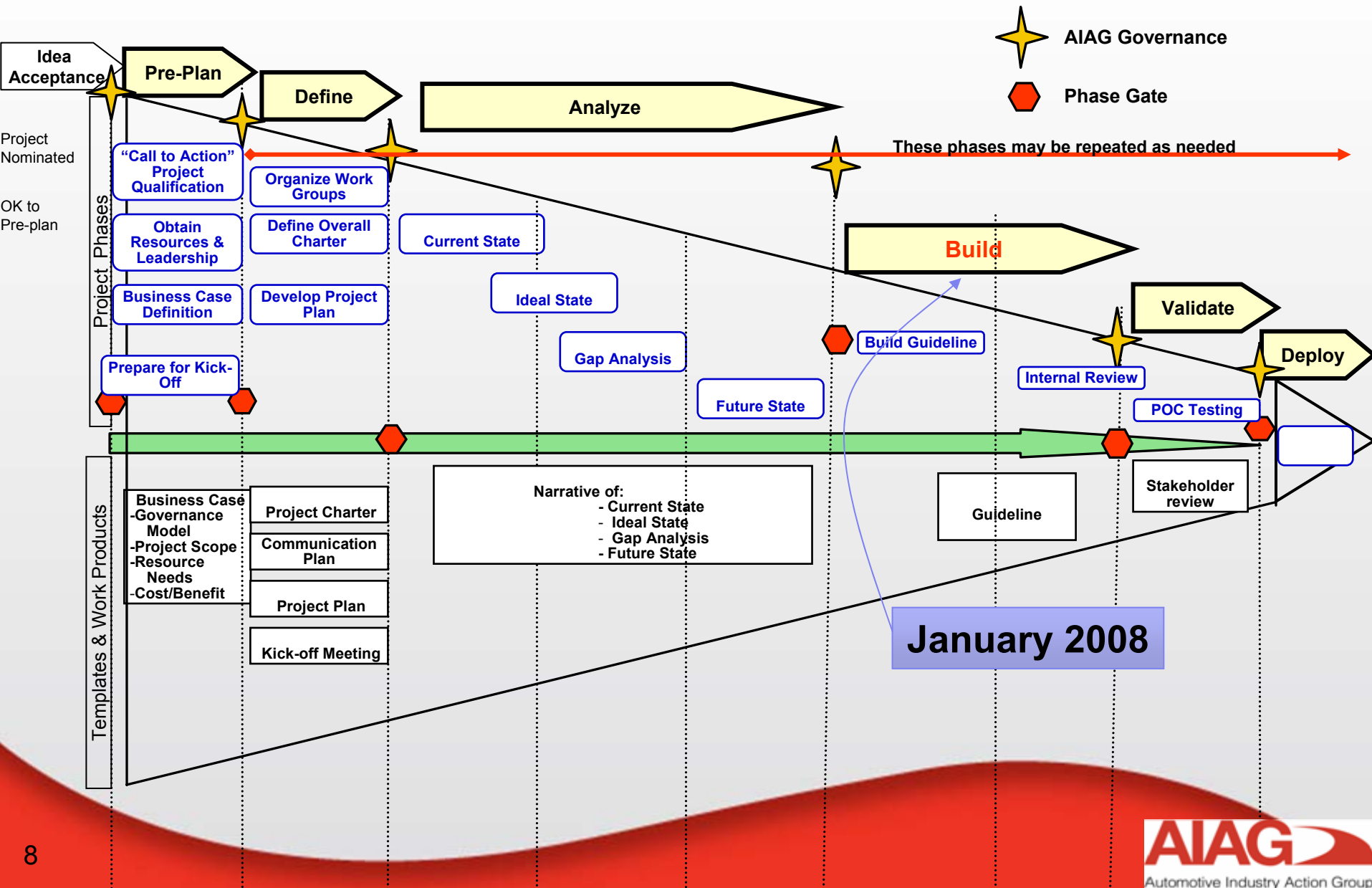
Industry Pain Points:

Which benefits would you expect your company to achieve from improvements in offshore/long distance supply chains?
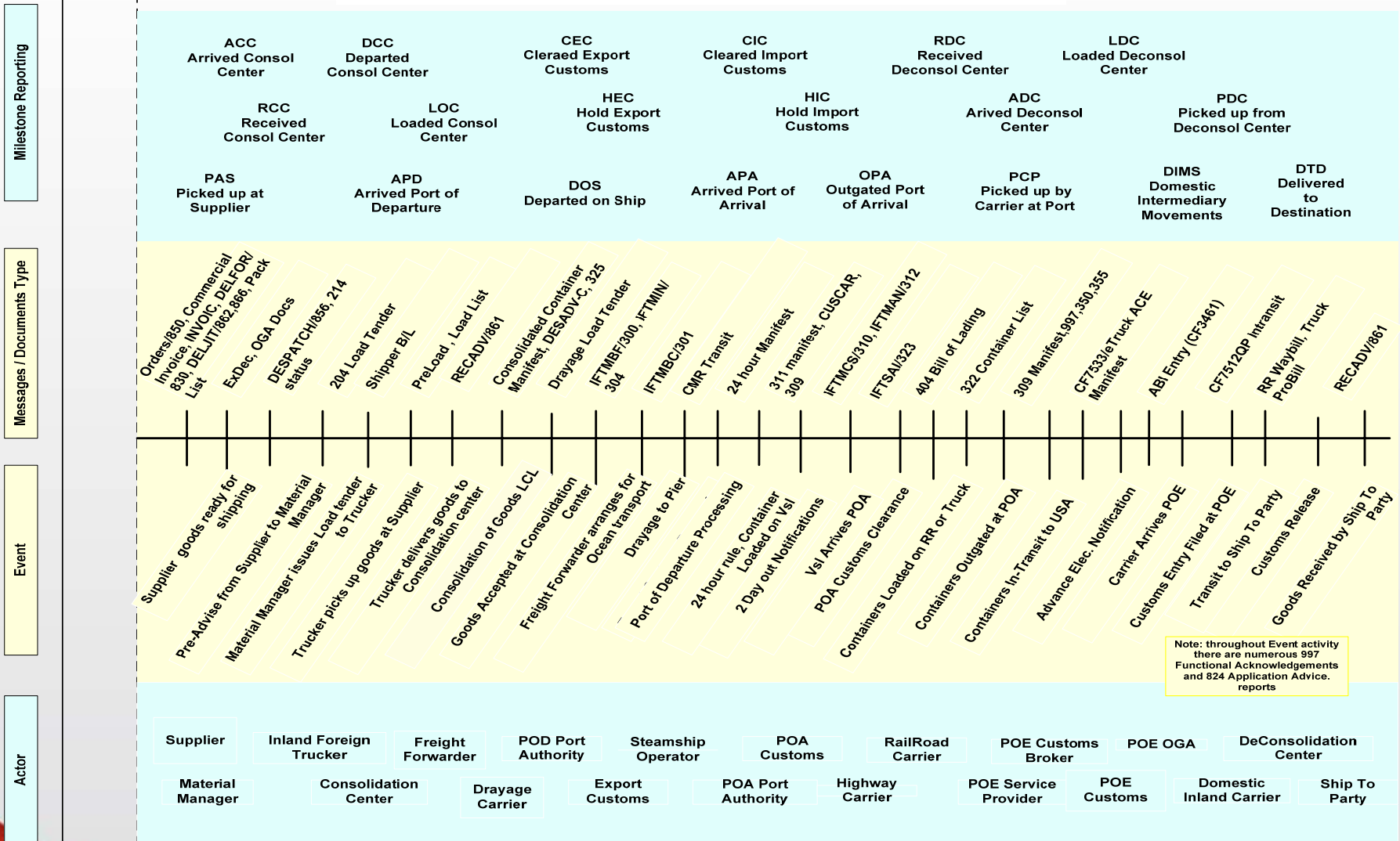
♦ **78% expect reductions in buffer stock inventory**

♦ **74% expect reductions in the use of premium freight**

♦ **71% expect improved visibility to material flow**

♦ **61% expect improved data integrity**

AIAG Project Management Process

MOSS Complexities of the Long Distance Supply Chain

SUMMARY INBOUND PROCESS FLOW: EU-CAMTR-USA

Milestone Reporting

ACC Arrived Consol Center	DCC Departed Consol Center	CEC Cleraed Export Customs	CIC Cleared Import Customs	RDC Received Deconsol Center	LDC Loaded Deconsol Center
RCC Received Consol Center	LOC Loaded Consol Center	HEC Hold Export Customs	HIC Hold Import Customs	ADC Arived Deconsol Center	PDC Picked up from Deconsol Center
PAS Picked up at Supplier	APD Arrived Port of Departure	DOS Departed on Ship	APA Arrived Port of Arrival / OPA Outgated Port of Arrival	PCP Picked up by Carrier at Port	DIMS Domestic Intermediary Movements / DTD Delivered to Destination

Messages / Documents Type

Orders/850, Commercial Invoice, INVOIC, DELFOR/ 830, DELJIT/862,866, Pack List · ExDec, OGA Docs · DESPATCH/856, 214 status · 204 Load Tender · Shipper B/L · PreLoad, Load List · RECADV/861 · Consolidated Container Manifest, DESADV-C, 325 · Drayage Load Tender · IFTMBF/300, IFTMIN/ 304 · IFTMBC/301 · CMR Transit · 24 hour Manifest · 311 manifest, CUSCAR, 309 · IFTMCS/310, IFTMAN/312 · IFTSAI/323 · 404 Bill of Lading · 322 Container List · 309 Manifest,997,350,355 · CF7533/eTruck ACE Manifest · ABI Entry (CF3461) · CF7512QP Intransit · RR Waybill, Truck ProBill · RECADV/861

Event

Supplier goods ready for shipping · Pre-Advise from Supplier to Material Manager · Material Manager issues Load tender to Trucker · Trucker picks up goods at Supplier · Trucker delivers goods to Consolidation center · Consolidation of Goods LCL · Goods Accepted at Consolidation Center · Freight Forwarder arranges for Ocean transport · Drayage to Pier · Port of Departure Processing · 24 hour rule, Container Loaded on Vsl · 2 Day out Notifications · Vsl Arrives POA · POA Customs Clearance · Containers Loaded on RR or Truck · Containers Outgated at POA · Containers In-Transit to USA · Advance Elec. Notification · Carrier Arrives POE · Customs Entry Filed at POE · Transit to Ship To Party · Customs Release · Goods Received by Ship To Party

Note: throughout Event activity there are numerous 997 Functional Acknowledgements and 824 Application Advice. reports

Actor

| Supplier | Inland Foreign Trucker | Freight Forwarder | POD Port Authority | Steamship Operator | POA Customs | RailRoad Carrier | POE Customs Broker | POE OGA | DeConsolidation Center |
| Material Manager | Consolidation Center | Drayage Carrier | Export Customs | POA Port Authority | Highway Carrier | POE Service Provider | POE Customs | Domestic Inland Carrier | Ship To Party |

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Complexities of current state long distance supply chains

	Long Distance Supply Chain (within Scope of MOSS)	Included in Proof of Concept
# Actors………………………………….....	20	6
# Events………………………………....	33	9
# Messages/documents………………..	30	9
# Status messages (milestone reports)	20	9
# Data elements…………………………	496	75

National Institute of Standards and Technology (NIST) Manufacturing Systems Integration Division:

NIST provides to MOSS technical expertise in developing standardized data protocols used in long distance supply chains.

♦ **Developed a NIST Website at http://syseng.nist.gov/moss**

♦ **Developing a MOSS Conceptual Model**

♦ **Developing a MOSS Testbed**

MOSS Testbed (unit test view)
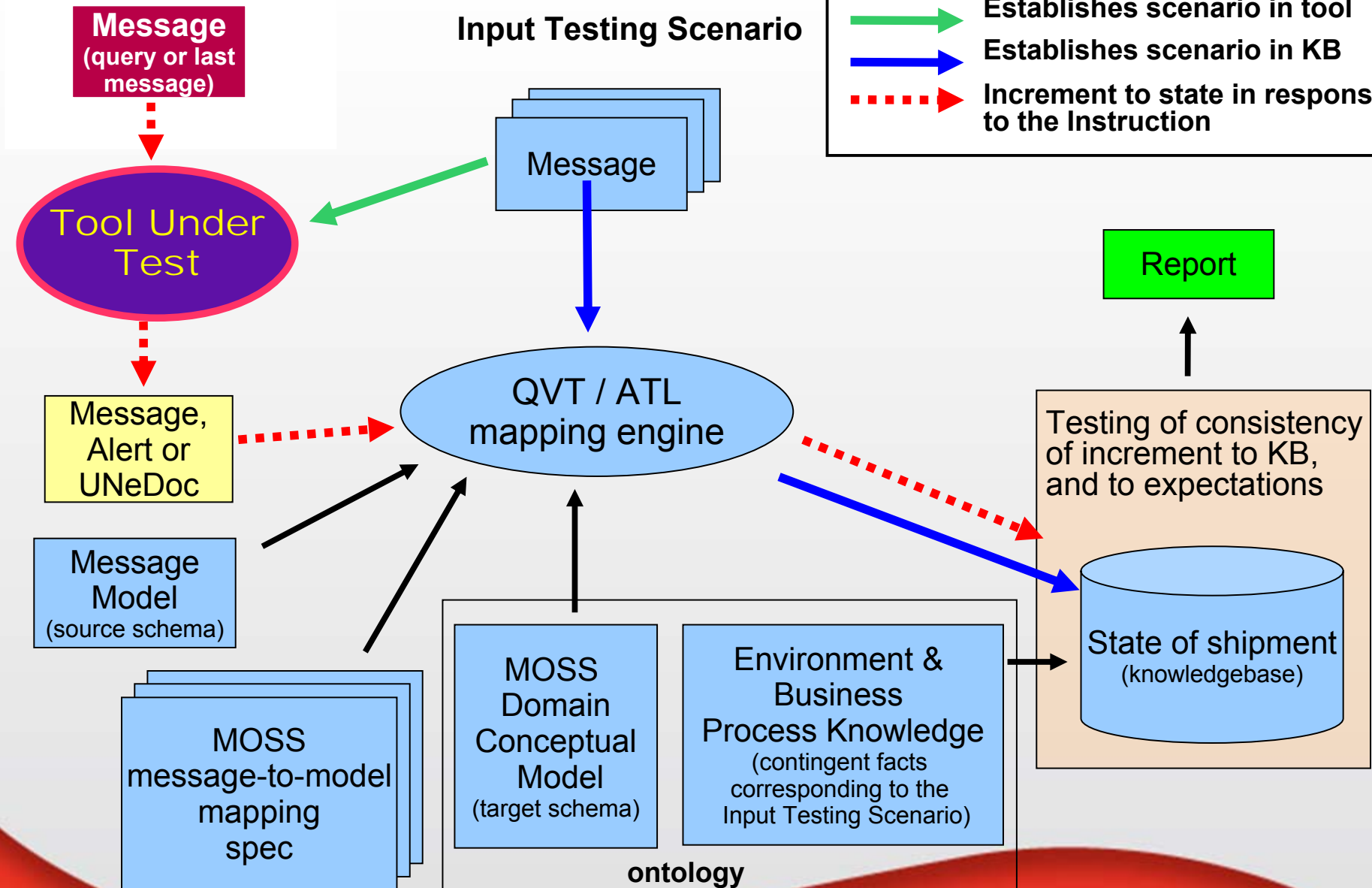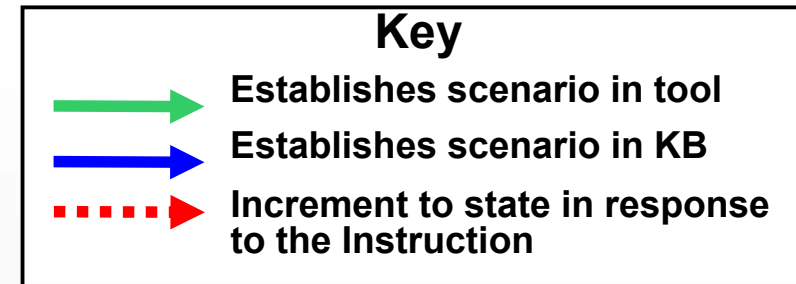
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THANK YOU!!